AMENDMENTS TO THE DRAWINGS

The attached four (4) sheets include labeling changes to each of FIGS. 7A, 7B, 8A and 8B, which conform to Applicants' specification as amended by this paper. The changes are:

Figures 7A and 7B

The change adds the reference numbers 2x, 2y and 2z to the three targets depicted by each of these figures, to conform to Applicants' originally filed specification at paragraph [0032], lines 4 and 9.

Figures 8A and 8B

The change adds to each of FIGS. 8A and 8B the reference label "31," to identify the support described and referenced as "31" in Applicants' specification, at [0046], line 4, as amended by this paper. The originally filed specification had a typographical error at [0046], line 4, reciting the reference number as "34."

AMENDMENTS TO THE SPECIFICATION:

At page 1, replace paragraph **[0002]** with the following amended paragraph:

[0002] There are a variety of known apparatus and methods for forming synthetic silica tubes or preforms with a given cross sectional profile of their index of refraction. The methods include the Plasma Outside Vapor Deposition (POVD) process described by Applicants' patent application Serial Nos. ~~09/558,312~~ 09/588,312 ("the '312 application") and 08/994,970 ("the '970 application"), both of which are hereby incorporated by reference. The method described by the '312 application deposits one or more layers at a first deposition speed followed by depositing a layer at a second deposition speed that is lower than the first. As described by the '312 application, the first deposition speed is sufficiently high that the deposited glass is not heated to the consolidation temperature. Deposition at the lower second speed, however, consolidates both the instant deposited layer and the unconsolidated layers deposited previously at the first, higher, speed. As described in the '312 application, the first deposition speed can be 2.5 times faster than the second, or deposition/consolidation speed. The multi-rate processing procedure described in the '312 application thus attains up to double the deposition rate over that obtained in the prior art.

At page 6, replace paragraph **[0017]** with the following amended paragraph:

[0017] An example plasma torch 4a is in accordance with that described by the copending '970 application, which is hereby incorporated by reference. In the preferred embodiments of this invention the plasma torch 4a, and all other plasma torches described herein include stabilizer bars ~~and~~ injection ports (nozzles), and a

coil made up of a plurality of windings, labeled respectively as item 58, 60, 52 and 54 ~~labeled as item 58 and 60, respectively~~ in the '970 application. The purpose and function of the stabilizer bars and injection ports 58 and 60, coil 54 and windings 52 are as described in the '970 application.~~of the '970 application is described therein.~~

At page 14, replace paragraph **[0046]** with the following amended paragraph:

[0046] Referring to Fig. 8A, the platforms 14 and 16 are supported on the ways 18 of Figs. 7A and 7B (not shown in Fig. 8A) on the top of platform 12, as described for the Third Example Embodiment. A lathe motor 30 having a drive sprocket 32 is mounted in a support 31 ~~34~~ in a cooperative and movable arrangement with respect to vertical guide slot 36. Each of the lathe chucks 5A through 5C of Figs. 7A and 7B, which are not shown in Figs. 8A and 8B, has a sprocket, labeled as 9A through 9C, respectively. A drive chain 34 extends around the driving sprocket 32 and the three lathe sprockets 9A through 9C. Accordingly, the single lathe motor 30 provides the rotational drive for all of the lathe chucks 5A through 5C. A conventional servo drive ~~(not shown),~~ 38 is shown mounted in support 31 in Figs. 8A and 8B, and which is readily selectable from commercially available units, by a person of ordinary skill in the art, controllably positions, in a vertical direction, the lathe motor 30 in response to the above-described control signal S. A bias spring 40 is arranged between a center structure 12a of the platform 12 and the platform 14, and a bias spring 42 is arranged between the center structure 12a and the platform 16. Bias springs 40 and 42 urge platforms 14 and 16 in the X direction away from platform 12. Platform 12 is fixed, as described in reference to Figs. 7A and 7B.

At page 14, replace paragraph **[0048]** with the following amended paragraph:

[0048] The deposition process begins with the apparatus in the position shown by Fig. 8A, using the same plasma torch apparatus as described in reference to Fig. 7A of the Third Example Embodiment. As the deposition continues the diameters of the targets 2x, 2y and 2z increase. ~~diameter of the targets 2 increases.~~ Target diameter sensor 20 outputs a control signal S indicative of the target 2 diameter, as described above, which is received by the servo drive 38. The above-described servo drive, in response, moves the lathe motor 30 to a higher position. As the lathe motor 30 moves upward there is resulting slack in the drive chain 34. The bias springs 40 and 42 take up the slack by urging the platforms 14 and 16 away from to take up the slack, whereupon the platforms 14 and 16 assume a position spaced further from the center platform 12 in the X direction. The deposition continues until the targets reach another designed diameter, whereupon the servo drive moves the lathe motor 30 to a next upper position. As described above, the bias springs 40 and 42 correspondingly urge the platforms 14 and 16 to a next outward position with respect to the center platform 12. The process of detecting the target diameter and moving the lathe motor 30 upward in response continues until the final designed diameter is reached. Referring to Fig. 8B, an example position of the lathe motor 30 and the platforms 14 and 16, when deposition has obtained the final designed diameter is shown. The total moving distance of the rotating drive motor 30 controls the overall traversal of the outside lathe chucks 5B and 5C.

At page 16, replace paragraph **[0049]** with the following amended paragraph:

[0049] The arrangement of the lathe motor 30, support 31 ~~34~~, guide slot 36 and servo drive 38 is for purposes of example only. Many alternative arrangements can be seen by one of ordinary skill upon reading this description. For example, the lathe motor may be mounted on a pivoting swing arm (not shown), which is moved about a pivot point (not shown) in an arc fashion.

At page 19, replace paragraph **[0062]** with the following amended paragraph:

[0062] The above-identified control unit controls the nozzle stepper to selectively position the opening (not labeled) of each of the nozzles 74 ~~72~~ to a location around the circumference of a selected tube from among tubes 64, 66, 68 and 70. The selected tube corresponds to configures the desired diameter of the torch 60.

At page 21, replace paragraph **[0066]** with the following amended paragraph:

[0066] When step 312 detects that the 80 mm diameter of the torch ring 66 is inadequate, the process goes to step 314 and switches over to the next larger ring 68 (100 mm). Similarly, when step 312 detects that the 100 mm diameter of the torch ring 70 ~~68~~ is inadequate, the process goes to step 314 and switches over to the largest (for this example) ring 68 (120 mm).